

## THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Jari Hamalainen et al.

SERIAL NO.: 09/255,325

ART UNIT: 2731

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EXAMINER: C. Nguyen

REISSUE OF U.S. PAT. NO.: 5,640,395 ISSUED: 6/17/97

TITLE: System For Transmitting Packet Data In Digital

Cellular Time Division Multiple Access (TDMA) Air

Interface

ATTORNEY DOCKET NO.: 297-005754-US(REI)

Commissioner of Patents and Trademarks Washington, D.C. 20231

## SUPPLEMENTAL REISSUE DECLARATION

Sir:

The undersigned inventors of the subject matter being claimed in U.S. Patent No. 5,640,395 and in this reissue application, hereby declare:

- 1. We believe the original patent to be partly inoperative by reason of claiming less than we had a right to claim in the patent.
- 2. More specifically, we believe that we claimed less than we had the right to claim in United States Patent No. 5,640,395.

That is, the claims of the patent have language that appears to be too narrow in view of the description of our invention, the subject of U.S. Patent No. 5,640,395, and the cited prior art.

- 3. Specifically, independent claims 1, 15, 17, 18 and 19, recite that TDMA frames are assigned a variable number of time slots designated for packet data transmission, the number of assigned time slots being a function of one of a symmetricity, an asymmetricity of the packet data transmission, and also on a total packet data transmission in the recited in the issued claims, the assignment of time slots does not particularly emphasize that the number of assigned uplink time slots and the number of assigned downlink time slots may be different, i.e. may be asymmetrical. The assignment of a symmetrical (equal) and an asymmetrical (unequal) number of time slots in the uplink and the downlink directions is disclosed in the patent at least at col. 7, lines 47-54, col. 9, lines 9-21, and Fig. 10 (symmetrical time slots) and col. 7, line 55 to col. 9, line 8, and Figs. 7a, 7b, 8 and 9 (asymmetrical time slots).
- 4. Additionally, the independent claims recite that the assignment of time slots is a function of a total demand for packet data transmission in the cell, and do not specify that the

total demand of data transmission in the cell may not affect the number of time slots allocated. That is, in the patent at least at col. 9, lines 60-63, two possibilities for assignment are disclosed. A first possibility is that a request for time slots is queued until a sufficient amount of free capacity (free time slots) is found, while a second possibility is that as many time slots as are free are assigned. Therefore, the total demand need not affect the number of time slots allocated.

- 5. Thus, a first error arose in that the claims as initially filed were too narrow. Broader claims should have been prepared and filed in view of the art known at the time of filing the application which issued as U.S. Patent No. 5,640,395. A second error occurred in that, during the prosecution of the application, the scope of the claims should have been reviewed to determine if the scope was sufficiently broad to cover our invention in view of the prior art cited by the United States Patent and Trademark Office. This was not done, which resulted in the scope of the claims being inadvertently too narrow in view of the disclosed subject matter of the patent.
- 6. The above described errors arose, without any deceptive intent. Only after the issuance of the patent did we realize that



the allowed claims failed to provide the scope of protection to which our invention is entitled. The requested correction of the scope of the claims of the present application is not prevented by any prior art that is known by us.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Jari Hamalainen

Zhi Chun Honkasalo

Harri Jokinen

Date

Jan 7th, 2000

Date